Western Washington Winter Weather

Storm Summary - Preliminary Results

14-23 January, 2012

Snowfall at the Langley Hill Radar

Updated

Synopsis

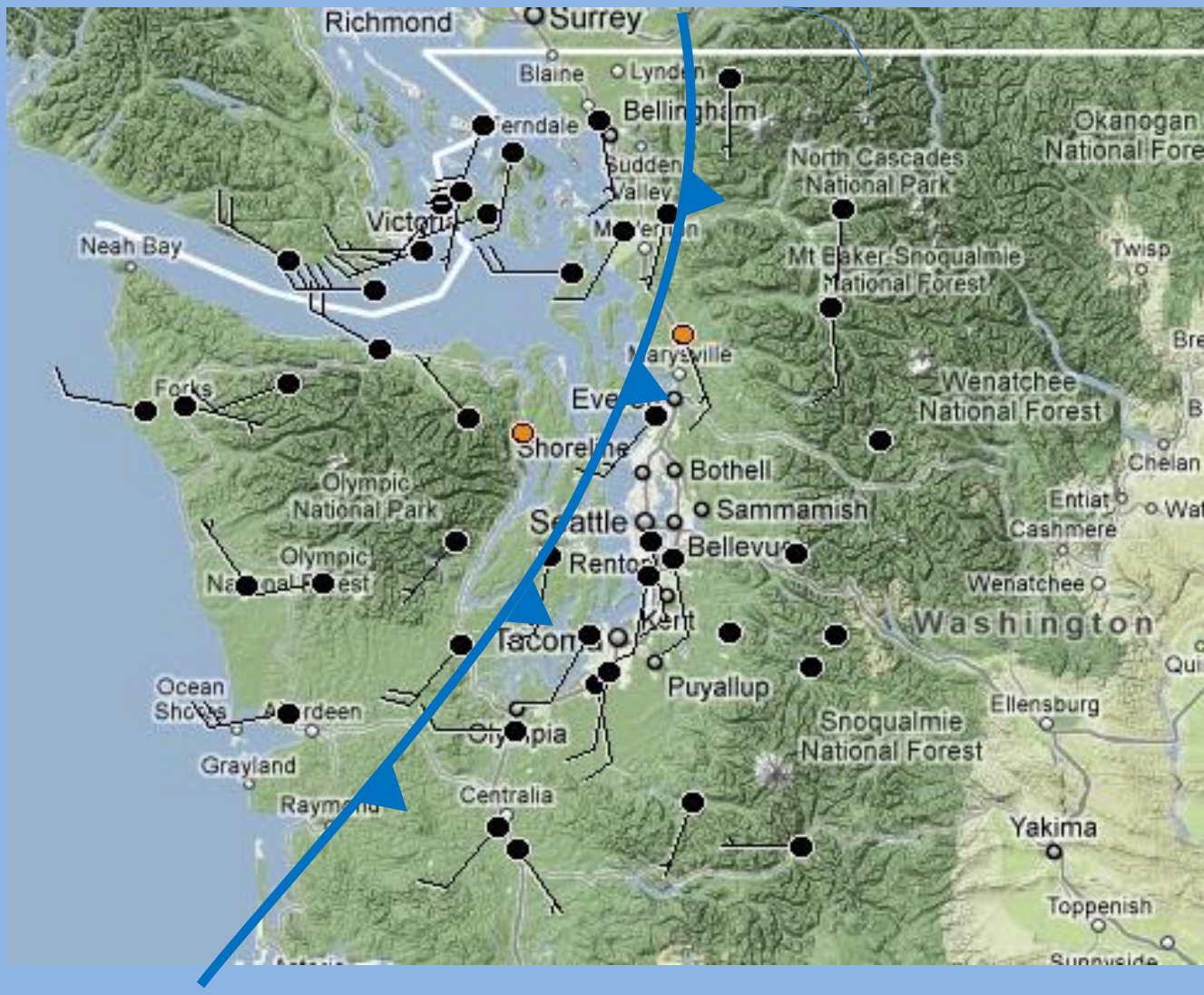
Seattle WA

A cold air outbreak from Alaska swept into the Pacific Northwest beginning on Saturday, 14 January and continued through Friday, 20 January, 2012.

A series of storm systems within the outbreak brought a mix of significant mountain and lowland snow, wind and colder temperatures throughout the week, culminating in a historic freezing rain event that affected a significant portion of western Washington on Thursday, 19 January, 2012.

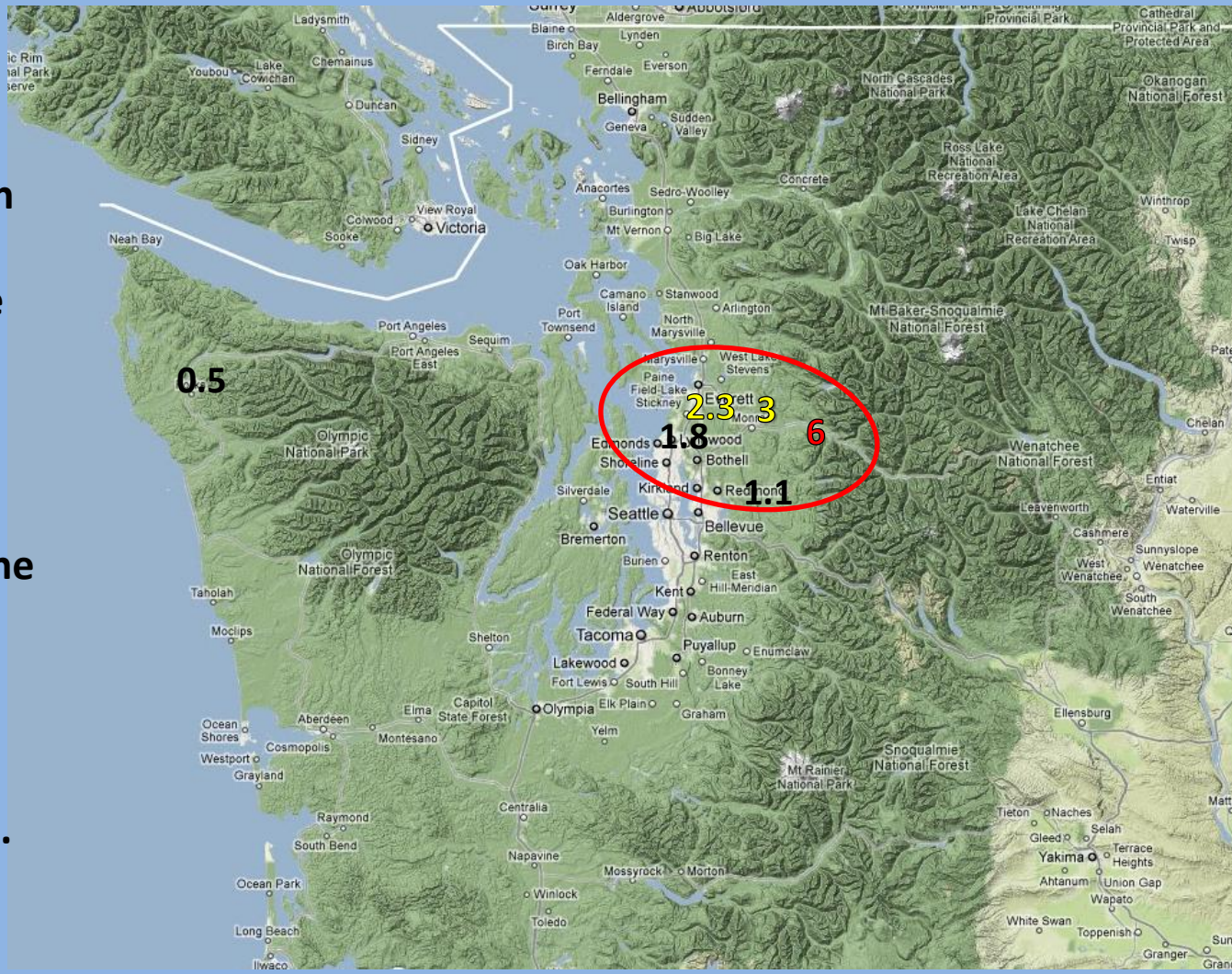
Saturday, January 14th (10 AM)

- **A cold front swept across western Washington late Saturday morning ushering in the coldest air mass of the season.**
- **Snow levels quickly lowered from 2500 ft. near dawn to sea-level behind the cold front.**
- **Scattered snow showers spread across the lowlands and a convergence zone developed over Snohomish County.**



Saturday, January 14th (5 PM)

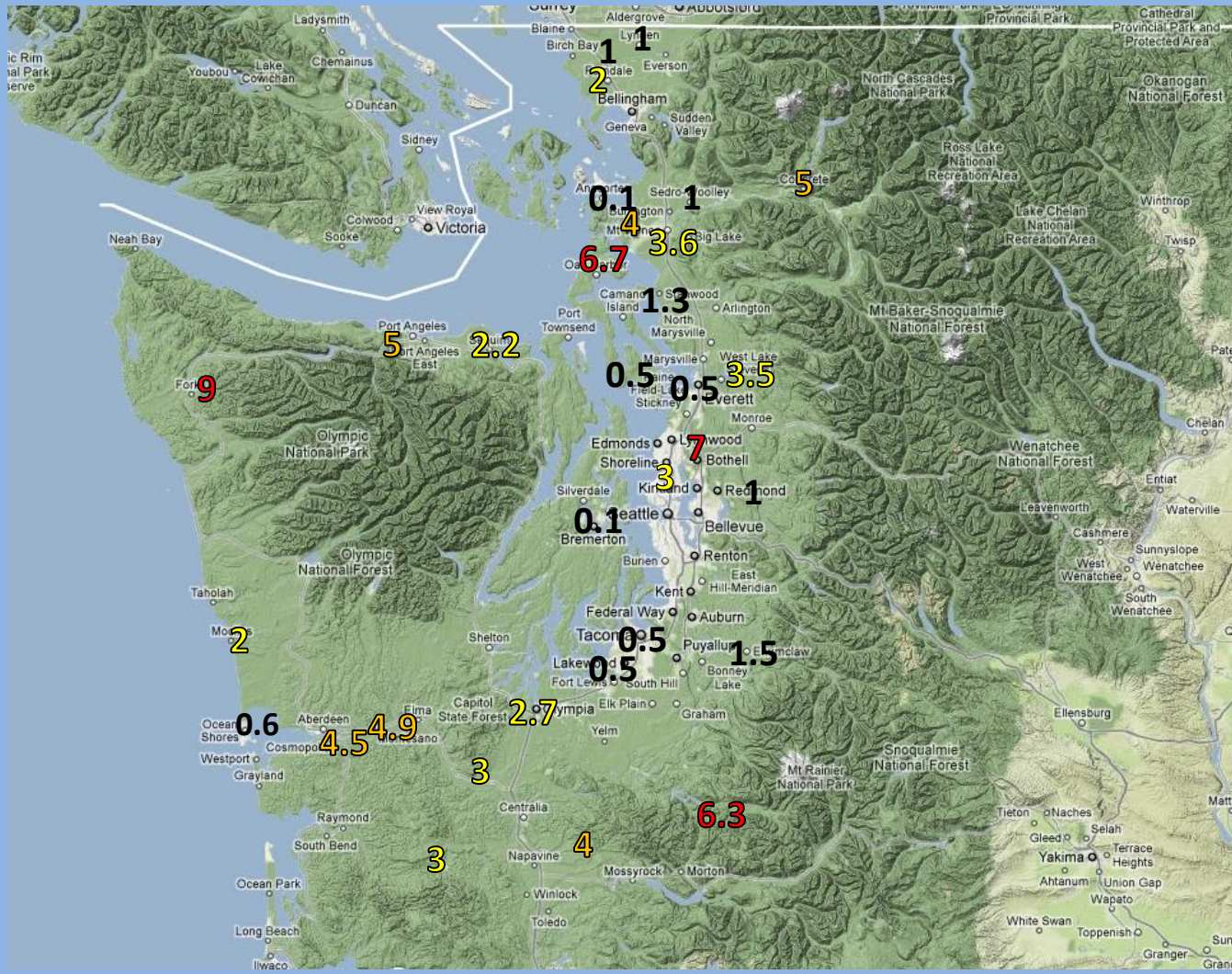
- **Scattered snow showers developed across western Washington with limited accumulations due to the ground still being warm.**
- **However, Heavy snow occurred from the late morning hours through the afternoon over southern Snohomish County and extreme northern King County due to the Puget Sound Convergence Zone.**



Sunday, January 15th

24hr Snowfall Ending at 7 AM

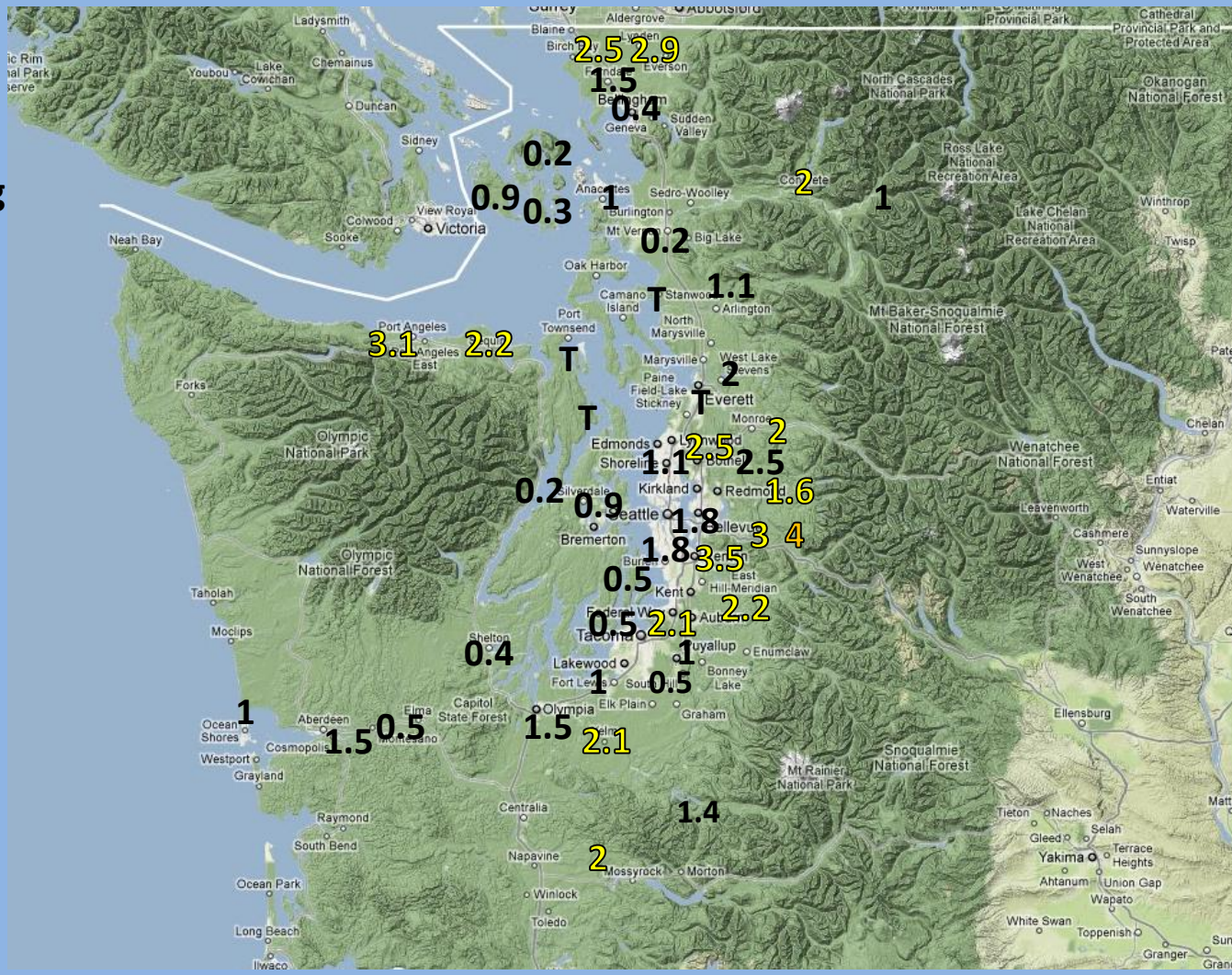
- An upper low near the NW Washington coast spread snow showers across most of western Washington.
- The heaviest snows occurred during the early morning hours across the north coast, Clallam County east into Skagit County and over the Southwest Interior.
- The Seattle metro area south to Tacoma was protected early in the day then snow showers developed that afternoon.



Monday, January 16th

24hr Snowfall Ending at 7 AM

- An upper low over NW Washington moved east during the early morning hours with the snow having tapered off overnight as indicated on this map.
- The heaviest snows generally occurred near upslope regions of Clallam County and near the west slopes of the Cascades.
- Snow increased late in the day as a disturbance developed off the coast while arctic air spilled out of the Fraser valley. This snowfall is represented on the next map.

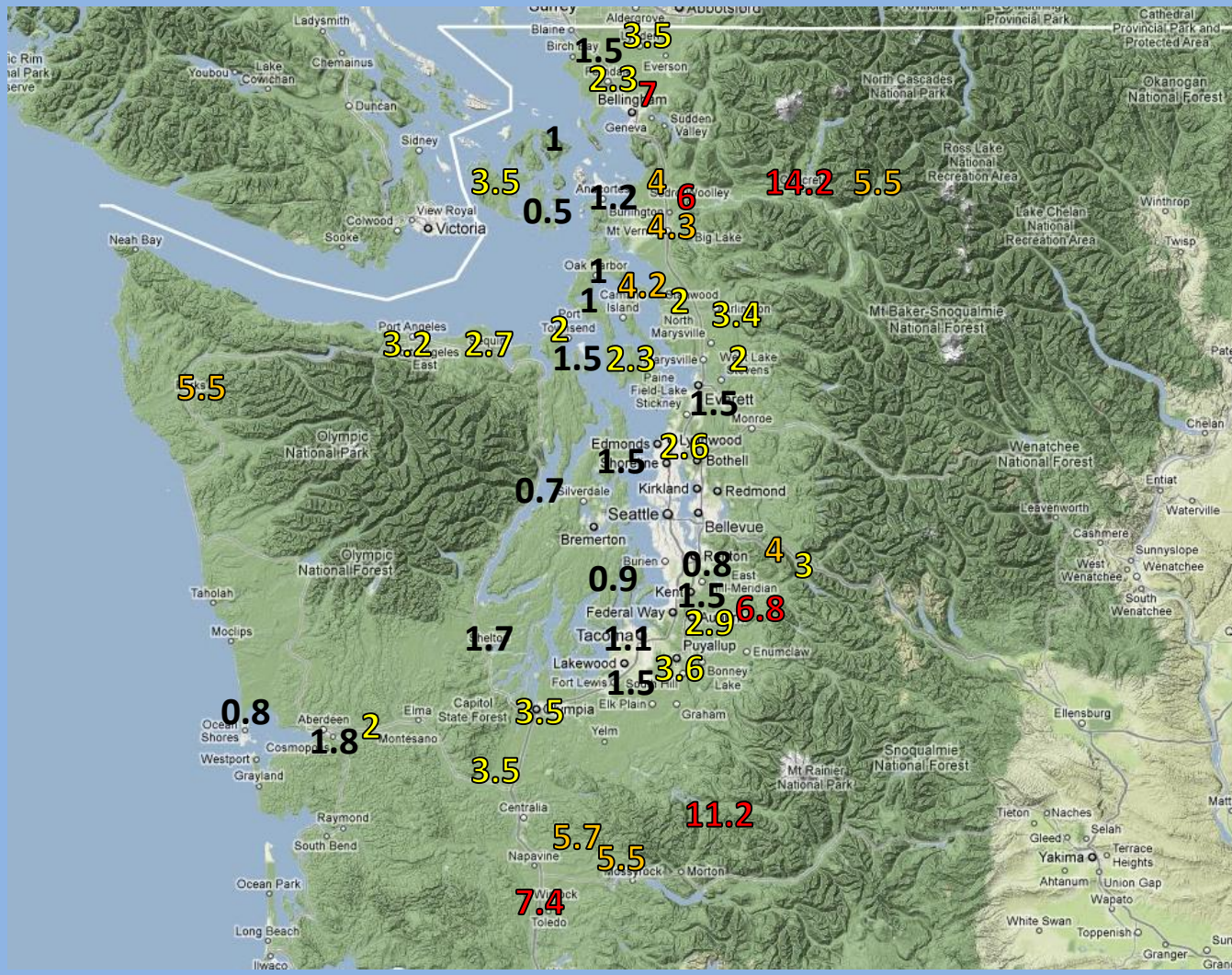


Tuesday, January 17th

24hr Snowfall Ending at 7 AM

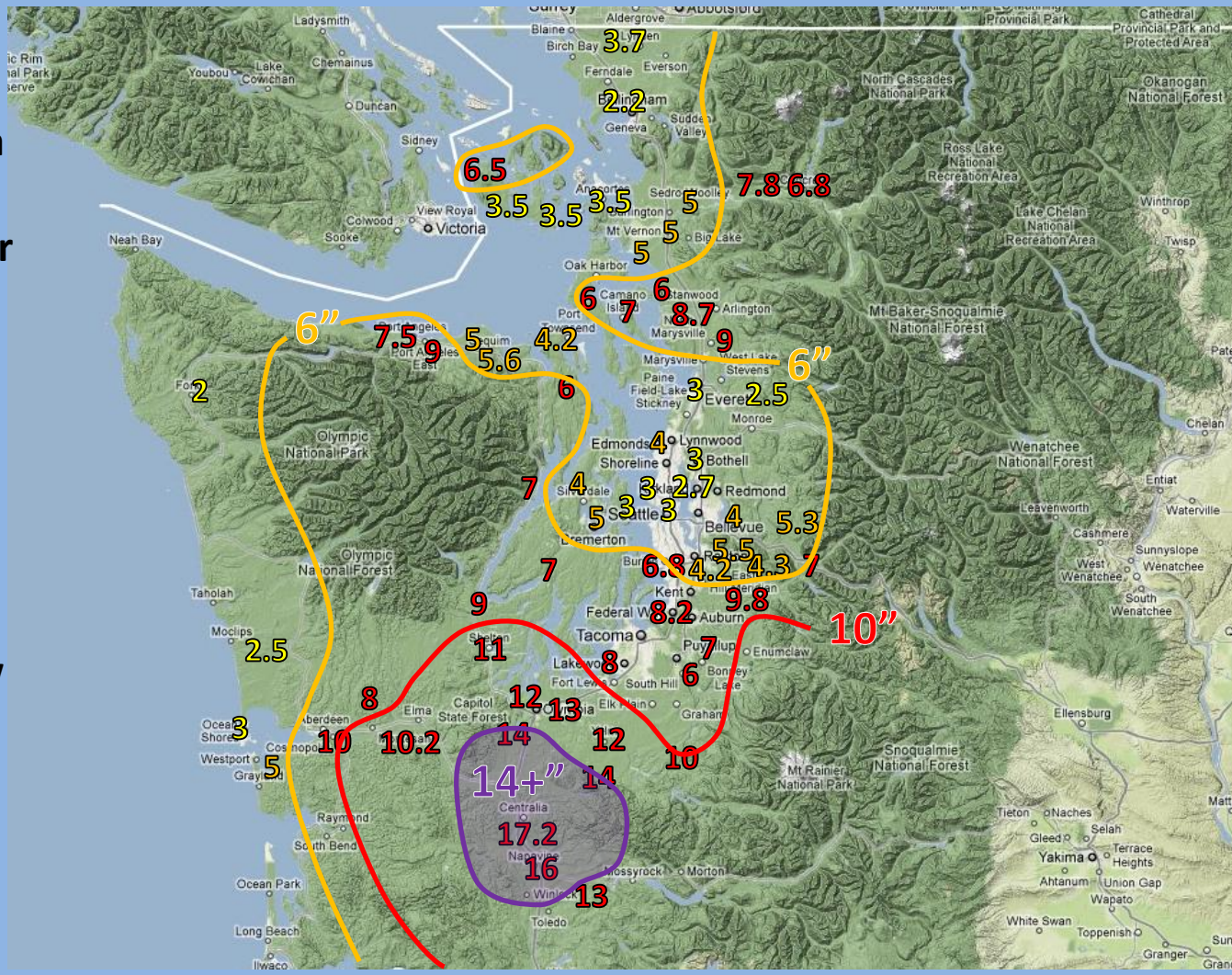
- **Snow showers continued overnight Monday well into Tuesday as a disturbance off the coast spread showers inland.**

- **Arctic air continued to spill out of the Fraser valley through the day reinforcing the cold air over the region.**



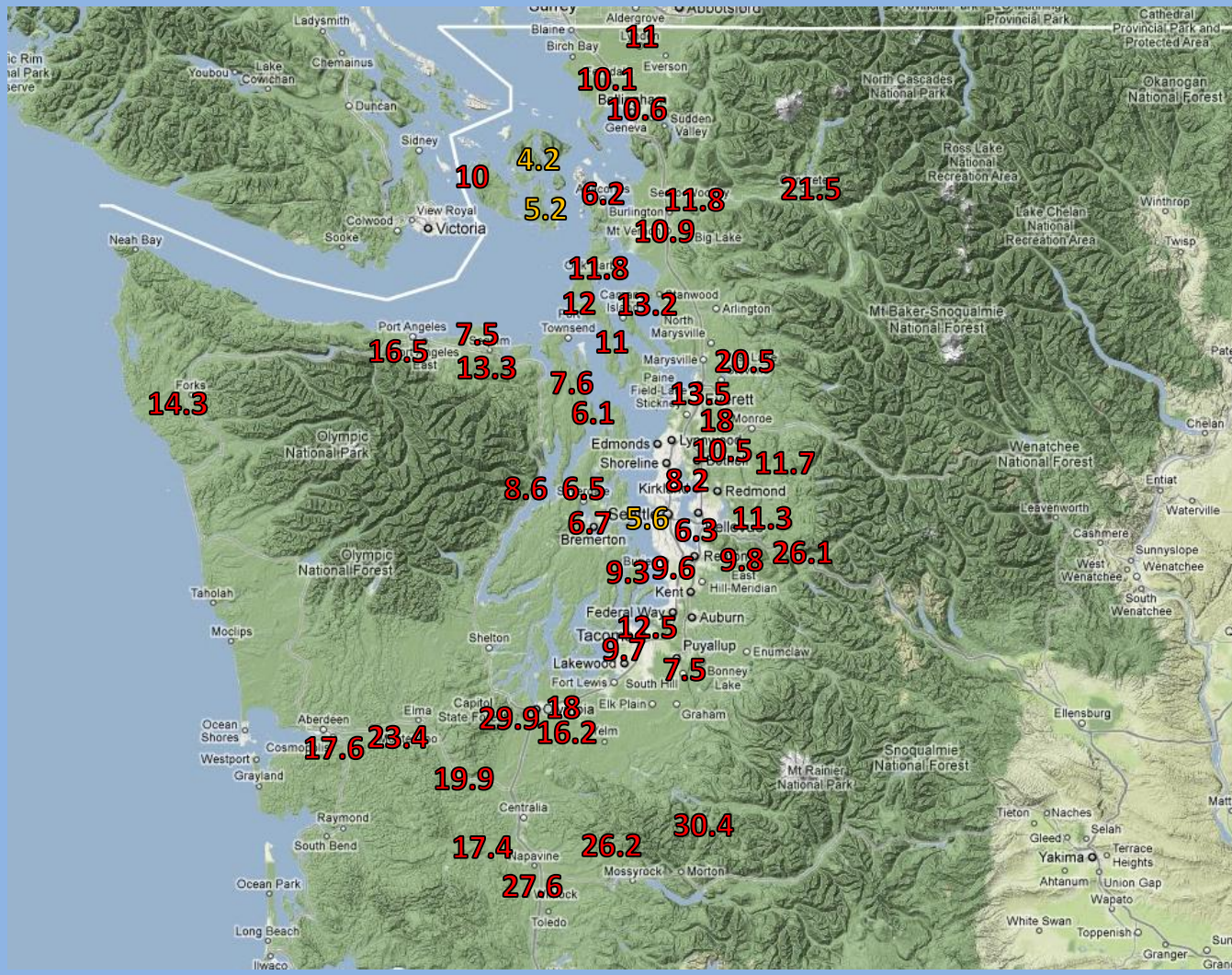
Wednesday, January 18th: Snowfall

- A storm system moving inland near the Columbia River spread abundant moisture over the cold air locked in place over western Washington.
- This resulted in near record snowfall over the Southwest Interior.
- Strong northeast outflow out of the Fraser River valley produced heavy upslope snow near Port Angeles and Sequim.



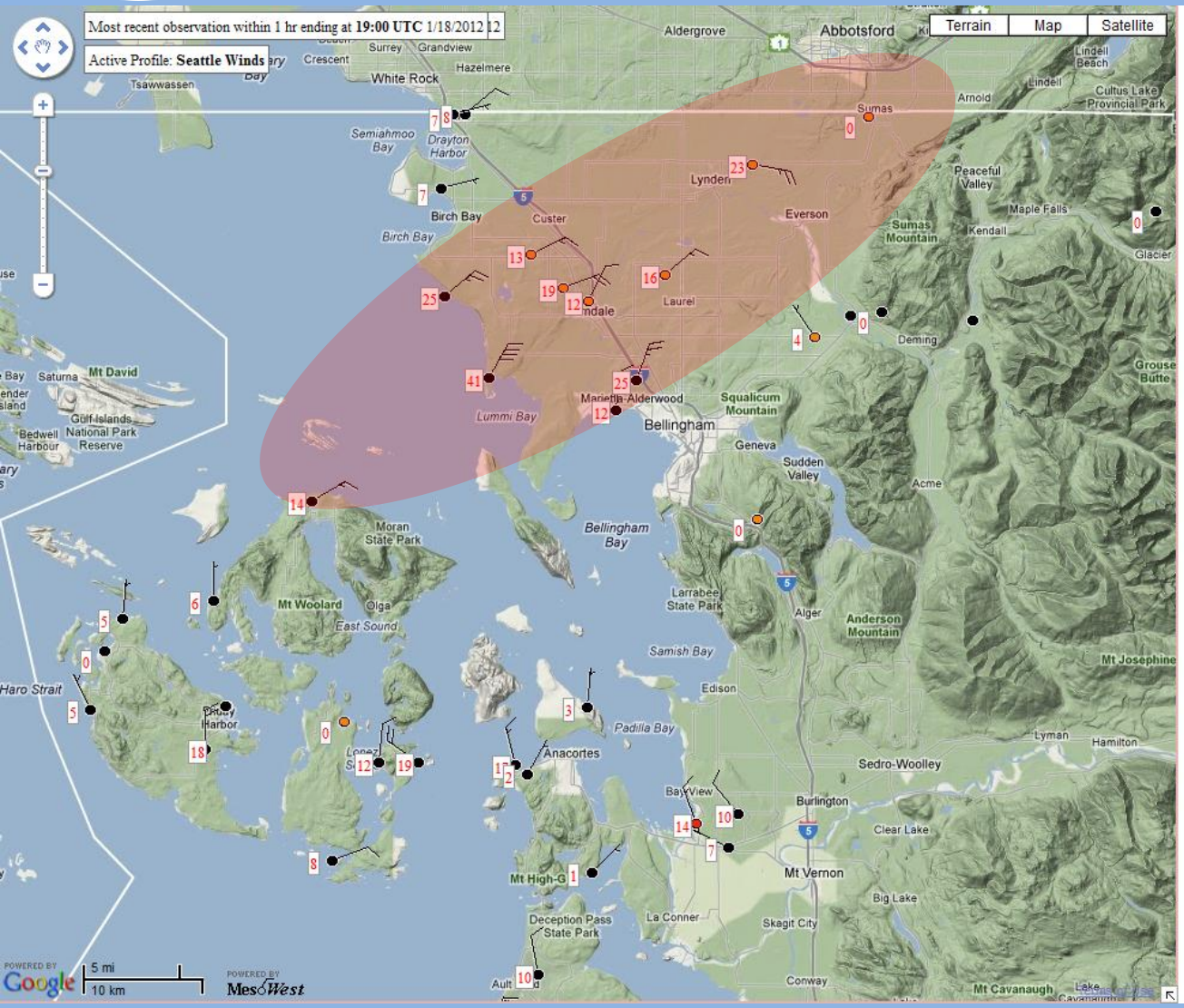
Total Snowfall January 14th-20th

- **Amounts shown are totals of daily snowfall reports through the cold outbreak.**
- **Observations include CoCoRaHS observers that reported each day through the event and the Sea-Tac, Quillayute and Olympia official climate locations.**



Wednesday, January 18th: Winds

Period and location (North Interior) of strongest winds, around 11 AM PST

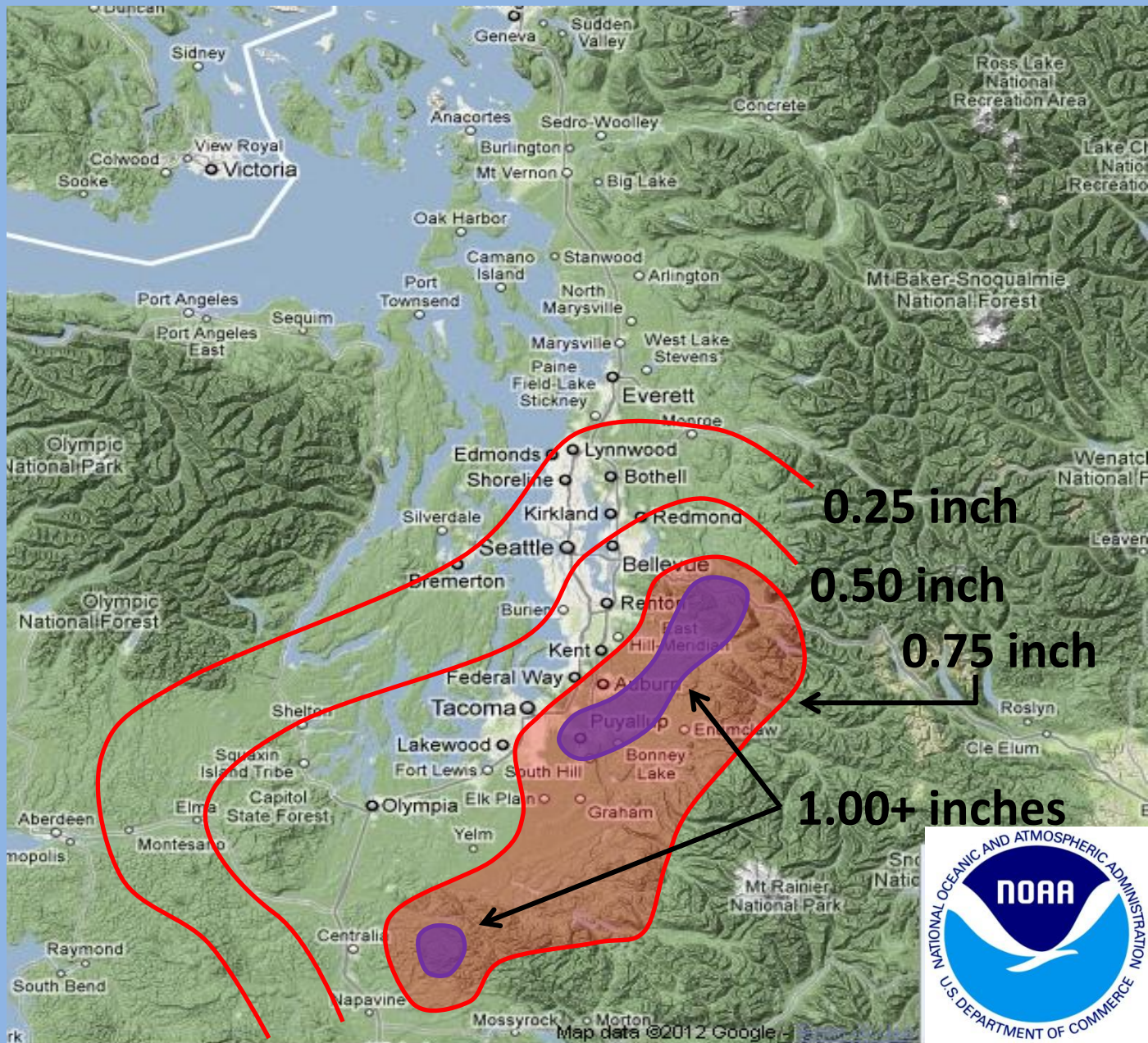


335 Active stations reporting. (Click on headers to sort data.)

Station	Temp	RH	DP	Wind ↑	Dir	Gust	Elev	Lat	Lon
• CW1394 Sandy Pt. S 01/18/2012 @ 10:55 PST	14	88	11	41	NNE	51	10	48.8	-122.71
• Buoy 46041 01/18/2012 @ 10:50 PST	38			27	E	31	0	47.3	-124.7
• Buoy 46088 01/18/2012 @ 10:50 PST	25			25	NNE	29	0	48.3	-123.2
• Bellingham Interna 01/18/2012 @ 10:53 PST	14	79	9	25	NNE	39	157	48.8	-122.54
• POINT ROBINSON COA 01/18/2012 @ 10:50 PST				25	N	29	10	47.39	-122.37
• Cherry Point 01/18/2012 @ 10:54 PST				25	NE	34	0	48.86	-122.76
• Hoquiam, Bowerman 01/18/2012 @ 10:53 PST	32	92	30	23	ENE	33	13	46.97	-123.92
• DW3625 Lynden 01/18/2012 @ 10:58 PST	9	88	6	23	E	49	125	48.96	-122.4
• CW5456 Hansville 01/18/2012 @ 10:54 PST	30	96	29	22	N	24	49	47.92	-122.58
• Quillayute State A 01/18/2012 @ 10:53 PST	29	82	24	22	NE	30	194	47.94	-124.55
• Alki Point 01/18/2012 @ 10:30 PST				20	N	0	20	47.58	-122.42
Station	Temp	RH	DP	Wind ↑	Dir	Gust	Elev	Lat	Lon
• DW6057 Anacortes 01/18/2012 @ 10:53 PST	20	94	19	19	NW	29	7	48.51	-122.79
• CW0213 Ferndale 01/18/2012 @ 10:26 PST	9	88	6	19	ENE		351	48.87	-122.62
• Point Wilson 01/18/2012 @ 10:30 PST				19	NW	0	15	48.14	-122.75
• Southworth 01/18/2012 @ 10:20 PST	31			18	NW		33	47.51	-122.49
• Buoy 46109 01/18/2012 @ 10:57 PST	29			18	N		0	48.1	-123.4
• Friday Harbor Airp 01/18/2012 @ 10:53 PST	20	77	14	18	N	31	108	48.52	-123.03
• Neah Bay 01/18/2012 @ 10:54 PST	34			17	ENE	25	0	48.37	-124.62
• Tacoma Narrows Air 01/18/2012 @ 10:53 PST	30	92	28	17	N	31	315	47.27	-122.58
• Anacortes 01/18/2012 @ 10:20 PST	23			17	NNW		33	48.51	-122.68
• Point No Point 01/18/2012 @ 10:30 PST				17	NNW	0	15	47.91	-122.53
• FIRE TRNG. ACADEMY 01/18/2012 @ 10:55 PST	29	98	29	16	ESE	27	1580	47.46	-121.67
• Bremerton National 01/18/2012 @ 10:55 PST	28	86	25	16	NNE	22	440	47.5	-122.75
Station	Temp	RH	DP	Wind ↑	Dir	Gust	Elev	Lat	Lon

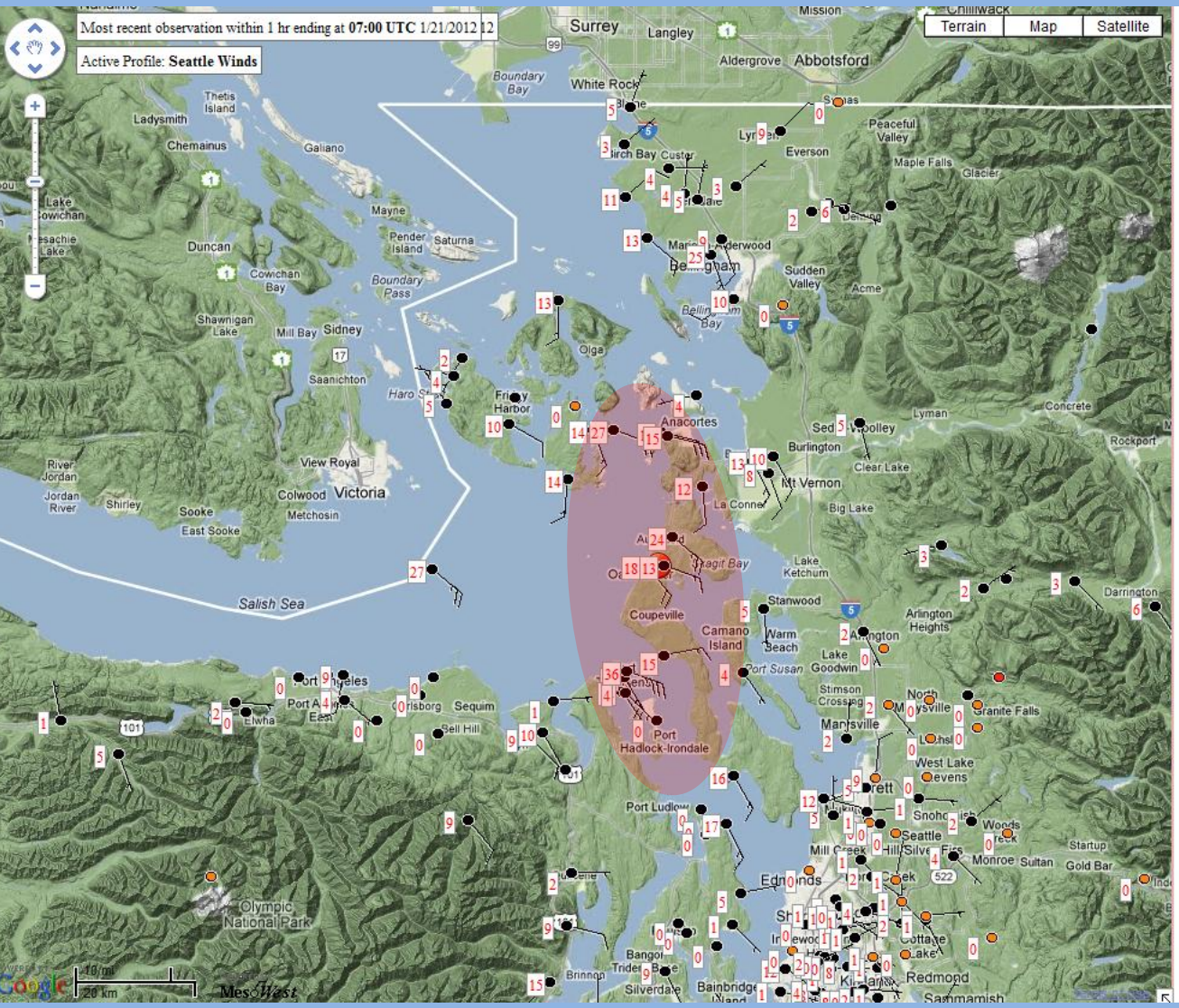
Approximate Freezing Rain/Drizzle Accumulation from the Evening of January 18th through the afternoon of January 19th

- A warm front remained south of the region through the day.
- Near the surface, northerly flow across the area maintained below freezing temperatures over western Washington.
- Abundant moisture streamed north over this cold layer, producing a historic freezing rain event.
- An Ice Storm Warning was issued early on Thursday, January 19:
  - First issuance ever for Western WA
  - Activation of EAS.



Friday, January 21st: Winds

Period and location (Admiralty Inlet/East Strait) of strongest winds, around 11 PM PST



297 Active stations reporting. (Click on headers to sort data.)

Station	Temp	RH	DP	Wind ↑	Dir	Gust	Elev	Lat	Lon
• Point Wilson 01/20/2012 @ 22:30 PST				36	ESE	0	15	48.14	-122.75
• DW6057 Anacortes 01/20/2012 @ 22:44 PST	47	90	44	27	ESE	32	7	48.51	-122.79
• Buoy 46088 01/20/2012 @ 22:50 PST	45			27	SE	31	0	48.3	-123.2
• CW9778 Bellingham 01/20/2012 @ 22:58 PST	50	83	45	25	SSE	42	66	48.78	-122.56
• Buoy 46041 01/20/2012 @ 22:50 PST	49			25	S	29	0	47.3	-124.7
• Whidbey Island, Na 01/20/2012 @ 22:56 PST	46	82	41	24	SE	36	46	48.35	-122.65
• CW8316 Port Townse 01/20/2012 @ 22:07 PST	43	100	43	24	SSE		23	48.14	-122.76
• Hoquiam, Bowerman 01/20/2012 @ 22:53 PST	50	94	48	23	S	33	13	46.97	-123.92
• Anacortes 01/20/2012 @ 22:50 PST	49			18	ESE		33	48.51	-122.68
• DW0288 Oak Harbor 01/20/2012 @ 22:59 PST	44	59	31	18	SE	29	39	48.3	-122.71
• Point No Point 01/20/2012 @ 22:30 PST				17	SSE	0	15	47.91	-122.53
Station	Temp	RH	DP	Wind ↑	Dir	Gust	Elev	Lat	Lon
• DW9051 Freeland 01/20/2012 @ 22:59 PST	44	95	43	16	SSE	19	10	47.98	-122.51
• CW2882 Anacortes 01/20/2012 @ 22:59 PST	47	88	44	15	ESE	29	230	48.5	-122.66
• Keystone 01/20/2012 @ 22:55 PST	44			15	E		10	48.16	-122.67
• ERINB Pleasant Har 01/20/2012 @ 22:55 PST	40			15	SW	23	689	47.67	-122.93
• Alki Point 01/20/2012 @ 22:30 PST				15	SSE	0	20	47.58	-122.42
• DW5375 Decatur Isl 01/20/2012 @ 22:55 PST	45	91	43	14	SSE	22	53	48.51	-122.83
• CW6225 Lopez Villa 01/20/2012 @ 22:56 PST	44	91	42	14	S		98	48.44	-122.89
• CW8576 Port Townse 01/20/2012 @ 22:59 PST	43	100	43	14	SE	17	190	48.11	-122.77
• HUMPTULLIPS 01/20/2012 @ 22:59 PST	41	100	41	14	SE	38	2400	47.37	-123.76
• Quillayute State A 01/20/2012 @ 22:53 PST	49			13	S	29	194	47.94	-124.55
• Eastsound, Orcas I 01/20/2012 @ 22:55 PST	46	87	43	13	S	23	30	48.71	-122.91
• CW1625 Oak Harbor 01/20/2012 @ 22:46 PST	42	93	40	13	ESE		158	48.31	-122.67
Station	Temp	RH	DP	Wind ↑	Dir	Gust	Elev	Lat	Lon

Mountain Snowfall

January 14th – January 23rd

- **Five to eight feet of snow fell across the mountains through the 10 day period.**
- **The heaviest single day amounts included 2 feet at Stevens and Snoqualmie passes on January 17th.**
- **A rather dry late December left a crusted snowpack in the mountains. This new heavy snow on top of the old crust created very hazardous avalanche conditions resulting in numerous long delays in travel across the passes.**